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U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

<b>POWER OF ATTORNEY OR AUTHORIZATION OF AGENT</b>	<b>Application Number</b>	09/997,205
	<b>Filing Date</b>	November 28, 2001
	<b>First Named Inventor</b>	Marc A. Unger
	<b>Title</b>	MICROFABRICATED ELASTOMERIC VALVE AND PUMP SYSTEMS
	<b>Group Art Unit</b>	1772
	<b>Examiner Name</b>	Unassigned
<b>Attorney Docket Number</b>		20174C-003020US

I hereby appoint:

☒ Practitioners at Customer Number **20350** → **Place Customer Number Bar Code Label here**

☐ Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

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OR

☐ Practitioners at Customer Number

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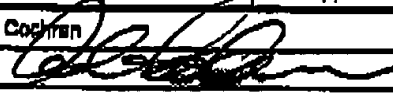
I am the:

☐ Applicant/Inventor.

☒ Assignee of record of the entire interest. See 37 CFR 3.71.

Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/88).

**SIGNATURE of Applicant or Assignee of Record**

<b>Name</b>	Adam Cochran
<b>Signature</b>	
<b>Date</b>	JAN 31 2002

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☐ Total of      forms are submitted.

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PTO/95B/98 (28-00)

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U.S. Patent and Trademark Office U.S. DEPARTMENT OF COMMERCEUnder the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.  
Attorney Docket No. 20174C-009020US**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: Mere A. Unger, et al.Application No./Patent No.: 02/957,205Filed/Issue Date: November 28, 2001Entitled: Microfabricated Elastomeric Valve and Pump SystemsCalifornia Institute of Technologya Corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by percentage) of its ownership interest is \_\_\_\_\_ %

In the patent application/patent identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From:

To:

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

- ☐ Additional documents in the chain of title are listed on a supplemental sheet.

- ☒ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 8, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.8]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

FEB 21 2002

Date

Adam Cochran

Typed or printed name

Signature

Intellectual Property Counsel

Title

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PA 3202733 v1

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Attorney Docket No.: 20174C-003020US

Client Ref. No.: 3016-CIP1-CIP1-CIP1

PTO/SB/01A (10-00)

Approved for use through 10/31/2002. OMB 0851-0032

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**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION  
USING AN APPLICATION DATA SHEET (37 CFR 1.76)**

As the below named inventor(s), I/we declare that:

This declaration is directed to:

- ☐ The attached application, or
- ☒ Application No. 09/997,205 filed on November 28, 2001
- ☐ as amended on \_\_\_\_\_ (if applicable);

I/we believe that I/we am/are the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought;

I/we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above;

I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be material to patentability as defined in 37 CFR 1.56, including material information which became available between the filing date of the prior application and the National or PCT International filing date of the continuation-in-part application, if applicable; and

All statements made herein of my/our own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.

**FULL NAME OF INVENTOR(S)**Inventor 1 Marc A. Unger Date: \_\_\_\_\_Signature: \_\_\_\_\_ Citizen of: United StatesInventor 2 Hou-Pu Chou Date: \_\_\_\_\_Signature: \_\_\_\_\_ Citizen of: ChinaInventor 3 Todd A. Thorsen Date: 14/07/02Signature: Todd Thorsen Citizen of: United StatesInventor 4 Axel Scherer Date: \_\_\_\_\_Signature: Axel Scherer Citizen of: United States 1/16/02☒ Additional inventors are being named on form(s) attached hereto.

Burden Hour Statement: This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is used by the public to file (and the PTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This form is estimated to take 1 minute to complete. This time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231. PA 3186532 v1

Attorney Docket No.: 20174C-003020US

Client Ref. No.: 3016-CIP1-CIP1-CIP1


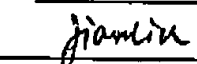

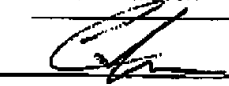
PTO/BB/01A (10-00)

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**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION  
USING AN APPLICATION DATA SHEET (37 CFR 1.76) -  
ADDITIONAL INVENTOR(S)  
Supplemental Sheet  
(Total of 2 forms are submitted.)**

FULL NAME OF INVENTOR(S)		
Inventor 5:	Stephen R. Quake	Date: 11/6/02
Signature:		Citizen of: United States
Inventor 6:	Jian Liu	Date: Jan. 14. 2002
Signature:		Citizen of: China
Inventor 7:	Mark L. Adams	Date: 14 JAN 02
Signature:		Citizen of: United States
Inventor 8:	Carl L. Hansen	Date: Jan 14/2002
Signature:		Citizen of: Canada

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Attorney Docket No.: 2017-0-003020US  
Client Ref. No.: 3016-CIP1-CIP1-CIP1

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As the below named inventor(s), I/we declare that:

This declaration is directed to:

- ☐ The attached application, or  
☒ Application No. 09/997,205 filed on November 28, 2001  
☐ as amended on \_\_\_\_\_ (if applicable);

I/we believe that I/we am/are the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought;

I/we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above;

I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be material to patentability as defined in 37 CFR 1.56, including material information which became available between the filing date of the prior application and the National or PCT International filing date of the continuation-in-part application, if applicable; and

All statements made herein of my/our own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.

**FULL NAME OF INVENTOR(S)**

Inventor 1 Marc A. Unger Date: 1/23/02

Signature: [Signature] Citizen of: United States

Inventor 2 Hou-Pu Chou Date: 1/23/02

Signature: [Signature] Citizen of: China Republic of China

Inventor 3 Todd A. Thorsen Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Citizen of: United States

Inventor 4 Axel Scherer Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Citizen of: United States

☒ Additional inventors are being named on form(s) attached hereto.

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PA 3186532 v1

Attorney Docket No.: 2017-0-003020US

Client Ref. No.: 3018-CIP1-CIP1-CIP1

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**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION  
USING AN APPLICATION DATA SHEET (37 CFR 1.76) –  
ADDITIONAL INVENTOR(S)  
Supplemental Sheet  
(Total of 2 forms are submitted.)**

FULL NAME OF INVENTOR(S)		
Inventor 5:	Stephen R. Quake	Date:
Signature:		Citizen of: United States
Inventor 6:	Jian Liu	Date:
Signature:		Citizen of: China
Inventor 7:	Mark L. Adams	Date:
Signature:		Citizen of: United States
Inventor 8:	Carl L. Hansen	Date:
Signature:		Citizen of: Canada

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